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(74) Agent: **GROENENDAAL, Antonius, W., M.**; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

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(71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

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(72) Inventors; and

(75) Inventors/Applicants (for US only): **HAEB-UMBACH, Reinhold** [DE/NL]; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **JANSE, Cornelis, P.** [NL/NL]; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **ROOVERS, David, A., C., M.** [NL/NL]; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

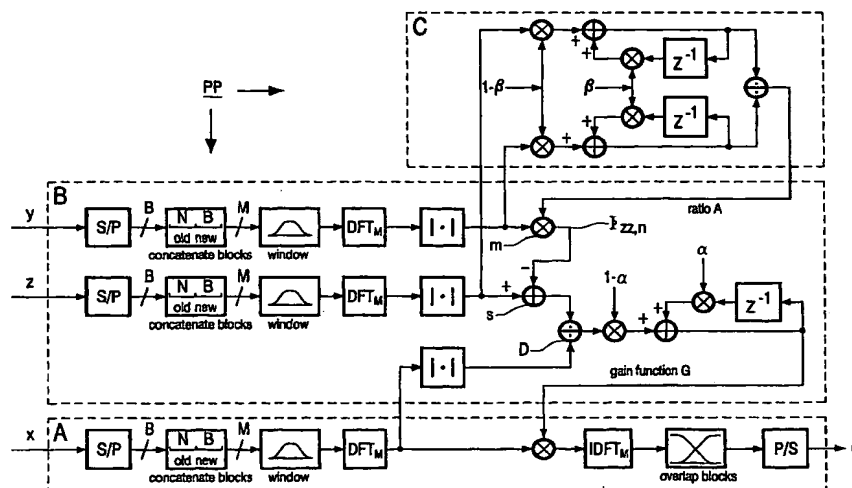
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(54) Title: AUDIO ENHANCEMENT SYSTEM HAVING A SPECTRAL POWER RATIO DEPENDENT PROCESSOR



(57) Abstract: An audio enhancement system is described, comprising audio signal inputs for a distorted desired signal and at least a reference signal, and a spectral processor coupled to the microphone array for processing the distorted desired signal by means of the reference signal acting as an estimate for the distortion of the desired signal. The spectral processor is arranged for modifying said processing such that the estimate for the distortion depends on  $A$  times the spectral power of the reference signal, where  $A$  is the ratio between the time averaged spectral power of the distortion of the distorted desired signal and the time averaged spectral power of the reference signal. The frequency dependency of the ratio  $A$  which is included in the distortion estimate, results in an improved audio enhancement system which is better suited for application in situations wherein the relation between the interfering signal and the distortion in the desired signal is not known in advance, such as for example in a car environment.



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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

PCT/IB 02/05295

A. CLASSIFICATION OF SUBJECT MATTER  
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## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, IBM-TDB, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 02 07151 A (BURNETT GREGORY C ;ALIPHCOM (US); BREITFELLER ERIC F (US)) 24 January 2002 (2002-01-24) abstract page 10, line 20 - line 30 page 5, line 25	1,5
P,X	US 2002/039425 A1 (BURNETT GREGORY C ET AL) 4 April 2002 (2002-04-04) abstract; claims 1-8 -/--	1,9,10

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Van Doremalen, J

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BOUQUIN-JEANNES LE R ET AL: "ENHANCEMENT OF SPEECH DEGRADED BY COHERENT AND INCOHERENT NOISE USING A CROSS-SPECTRAL ESTIMATOR" IEEE TRANSACTIONS ON SPEECH AND AUDIO PROCESSING, IEEE INC. NEW YORK, US, vol. 5, no. 5, 1 September 1997 (1997-09-01), pages 484-487, XP000774308 ISSN: 1063-6676 abstract paragraph 'OIII! ---	1,9,10
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